We Claim:

1. In an optical fibre lasing system including a laser system interconnected with an optical waveguide, a method of reducing the feedback effects from Rayleigh backscattering comprising the step of:

subjecting portions of said optical waveguide to low frequency mechanical vibration so as to reduce feedback from Rayleigh backscattering of said optical waveguide.

2. A method as claimed in claim 1 wherein said low frequency mechanical vibration comprises a continuous oscillation.

3. A method as claimed in claim 2 wherein said low frequency is in the range of 300Hz to 1200Hz.

4. A method as claimed in claim 2 wherein said low frequency is in the range of 300Hz to 40KHz.

5. A method as claimed in claim 1 wherein said optical waveguide comprises an optical fibre.

6. A method as claimed in claim 1 wherein said mechanical vibration of said optical waveguide occurs substantially adjacent is interconnection with said laser system.

7. An optical communications system comprising:

a laser source;

an optical waveguide interconnected to said laser source to carry an optical signal from said source to an optical receiver;

an optical receiver interconnected to said optical waveguide for decoding said signal;

a mechanical modulator adapted to substantially continuously mechanically perturb a portion of said optical waveguide so as to reduce Rayleigh backscattering from said optical waveguide.

8. An optical communications system as claimed in claim 7 wherein said mechanical modulator comprises a mechanical oscillator.

9. An optical communications system as claimed

in claim 8 wherein said mechanical oscillator oscillates at a frequency in the range of 300Hz to 40Khz.

10. An optical communications system as claimed in claim 8 wherein said mechanical oscillator oscillates at a frequency in the range of 300Hz to 2500Hz.

11. An optical communications system as claimed in any of claim 7 to claim 10 wherein said mechanical modulator is in contact with said optical waveguide.

12. An optical communications system as claimed in any of claim 7 to claim 10 herein said mechanical modulator emits an audio signal in the presence of said optical waveguide.

13. An optical communications system as claimed in claim 7 herein said mechanical modulator interacts with an initial portion of said optical waveguide substantially adjacent said interconnection with said laser.

14. An optical communications system as claimed in claim 7 wherein said optical waveguide comprises an optical fibre and further includes a portion of an optical fibre having an offset core and said mechanical modulator perturbs said portion.

15. An optical communications system as claimed in claim 14 wherein said portion is bent into a coil.

16. An optical fibre communications system substantially as hereinbefore describe with reference to the accompanying drawings.